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**Preparation of covalent conjugates of hydroxyethyl starch with active agents, useful as drugs or diagnostic agents, comprises reaction in aqueous medium to give purer, less toxic product**

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Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 10112825	A1	20021002	DE 10112825	A	20010316	200311 B
WO 200280979	A2	20021017	WO 2002EP2928	A	20020315	200311
CZ 200302430	A3	20031112	WO 2002EP2928	A	20020315	200379
			CZ 20032430	A	20020315	
NO 200304095	A	20031104	WO 2002EP2928	A	20020315	200380
			NO 20034095	A	20030915	
EP 1372735	A2	20040102	EP 2002742858	A	20020315	200409
			WO 2002EP2928	A	20020315	
HU 200303511	A2	20040128	WO 2002EP2928	A	20020315	200415
			HU 20033511	A	20020315	
KR 2003084998	A	20031101	KR 2003712061	A	20030916	200418
BR 200208126	A	20040302	BR 20028126	A	20020315	200419
			WO 2002EP2928	A	20020315	
AU 2002338315	A1	20021021	AU 2002338315	A	20020315	200433
CN 1498115	A	20040519	CN 2002806722	A	20020315	200455
JP 2004525170	W	20040819	JP 2002579017	A	20020315	200455
			WO 2002EP2928	A	20020315	
ZA 200306363	A	20040929	ZA 20036363	A	20030815	200468
MX 2003008218	A1	20040301	WO 2002EP2928	A	20020315	200475
			MX 20038218	A	20030911	
NZ 528251	A	20041224	NZ 528251	A	20020315	200506
			WO 2002EP2928	A	20020315	
US 20050063943	A1	20050324	WO 2002EP2928	A	20020315	200526
			US 2004472002	A	20040922	

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WO 200280979 A2 G A61K-047/48

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CZ 200302430 A3 A61K-047/48 Based on patent WO 200280979

NO 200304095 A A61K-047/48

EP 1372735 A2 G A61K-047/48 Based on patent WO 200280979

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR

HU 200303511 A2 A61K-047/48 Based on patent WO 200280979

KR 2003084998 A A61K-047/48

B4

BR 200208126 A	A61K-047/48	Based on patent WO 200280979
AU 2002338315 A1	A61K-047/48	Based on patent WO 200280979
CN 1498115 A	A61K-047/48	
JP 2004525170 W	123 A61K-047/48	Based on patent WO 200280979
ZA 200306363 A	97 A61K-000/00	
MX 2003008218 A1	A61K-047/48	Based on patent WO 200280979
NZ 528251 A	A61K-047/48	Based on patent WO 200280979
US 20050063943 A1	A61K-038/28	

Abstract (Basic): DE 10112825 A1

NOVELTY - Production of a covalent conjugate (I) of hydroxyethyl starch (HES) and an active agent (A), comprises reacting HES and (A) in a reaction medium.

DETAILED DESCRIPTION - Production of a covalent conjugate (I) of hydroxyethyl starch (HES) and an active agent (A), comprises reacting HES and (A) in a reaction medium, the reaction medium consists of water or a water-organic solvent mixture containing at least 10 weight. % water.

An INDEPENDENT CLAIM is included for (I).

USE - (I) are used in medicament or diagnostic compositions (claimed). Conjugation with HES ('HES-ylation') is useful for increasing the in vivo half-life, stability and solubility, improving the rheological properties and reducing the toxicity and immunogenicity of (A), while retaining the biological activity.

ADVANTAGE - Reaction of HES and (A) in an aqueous medium (rather than in potentially toxic organic solvents) suppresses side-reactions and provides purer, less toxic conjugates (I). The need for strict quality control to ensure the absence of solvent residues and problems of denaturation of protein or peptide drugs by solvents are eliminated. The products retain a high level of activity and are easy to isolate.

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Title Terms: PREPARATION; COVALENT; CONJUGATE; HYDROXYETHYL; STARCH; ACTIVE ; AGENT; USEFUL; DRUG; DIAGNOSE; AGENT; COMPRISE; REACT; AQUEOUS; MEDIUM; PURE; LESS; TOXIC; PRODUCT

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